

# CT Conformis Knee

Updated  
5/5/2024

Indications - pre surgical evaluation prior to knee joint replacement.

Bill under CT LE w/o Contrast charge. Do not include separate hip, knee and ankle charges.

## GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

Patient positioning:

Patient in supine position feet first with knees extended and toes pointing straight up.

Elevate contralateral leg if prosthesis present to minimize streak artifact.

Do not allow patient movement between or during the scans.

Topogram - iliac crests through feet.

Craniocaudal scan coverage (see images below):

Hip - acetabulum through bottom of femoral head. FOV 250-300 mm.

Knee - distal third of femur through proximal half of tibia. FOV 200-250 mm.

Ankle - 2 cm above to 2 cm below ankle joint. FOV 150-200 mm.

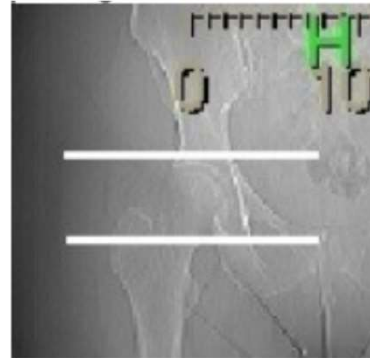
IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

Prepare an uncompressed DICOM disc containing all images.



**Knee CC Coverage**



**Hip CC Coverage**



**Ankle CC Coverage**

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## SIEMENS PARAMETERS & RECONS

For **Hip** scan:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time
Sensation 16	spiral	120	200	on	NA	0.80	16	0.75	0.5
Go Up 32	spiral	130	109	on	on 170	0.80	32	0.7	1.0
Sensation 64	spiral	120	200	on	NA	0.90	64	0.6	0.5
Definition 64	spiral	120	190	on	on	0.80	64	0.6	1.0
Go Top 64	spiral	120	131	on	on 170	0.80	64	0.6	1.0
Drive 128	spiral	120	133	on	on	0.80	128	0.6	1.0
Force 192	spiral	120	133	on	on	0.80	192	0.6	1.0

For **Knee** and **Ankle** scans:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time
Sensation 16	spiral	120	140	on	NA	0.55	16	0.75	1.0
Go Up 32	spiral	Sn 110	366	on	on 75	0.40	32	0.7	1.0
Sensation 64	spiral	120	140	on	NA	0.90	64	0.6	1.0
Definition 64	spiral	120	100	on	<b>off</b>	0.80	64	0.6	1.0
Go Top 64	spiral	Sn 110	898	on	on	0.40	64	0.6	1.0
Drive 128	spiral	120	70	on	<b>off</b>	0.80	128	0.6	1.0
Force 192	spiral	120	70	on	<b>off</b>	0.80	192	0.6	1.0

### HIP RECONS

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX HIP BONE	2.0	2.0	Br59 / B60	bone/osteo	3	head/feet

### KNEE RECONS

AX KNEE BONE	1.0	0.5	Br59 / B60	bone/osteo	3	head/feet
COR KNEE BONE	1.0	1.0	Br59 / B60	bone/osteo	3	front/back
SAG KNEE BONE	1.0	1.0	Br59 / B60	bone/osteo	3	left/right

### ANKLE RECONS

AX ANKLE BONE	2.0	2.0	Br59 / B60	bone/osteo	3	head/feet
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# CT Conformis Knee

## GE PARAMETERS & RECONS

For **Hip** and **Ankle** scans:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR
LS 16	helical	large	120	100-440	12.50	on	2.5	10	0.938	9.37	0.5	NA	NA
Opt 540	helical	large	120	100-440	12.50	on	2.5	10	0.938	9.37	0.5	NA	NA
LS VCT 64	helical	large body	120	100-450	16.00	on	2.5	40	0.984	39.37	0.5	20	20
Disc VCT 64	helical	large body	120	100-450	16.00	on	2.5	40	0.984	39.37	0.5	20	20

For **Knee** scan:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR
LS 16	helical	large	120	100-440	17.68	on	1.25	10	0.938	9.37	0.5	NA	NA
Opt 540	helical	large	120	100-440	17.68	on	1.25	10	0.938	9.37	0.5	NA	NA
LS VCT 64	helical	large body	120	100-450	22.63	on	1.25	40	0.984	39.37	0.5	20	20
Disc VCT 64	helical	large body	120	100-450	22.63	on	1.25	40	0.984	39.37	0.5	20	20

### HIP RECONS

Name of Series	Thickness	Interval	Recon Algorithm/Mode	Window Width/Level	Recon Direction
<b>AX HIP BONE</b>	<b>2.5</b>	<b>2.5</b>	<b>bone full</b>	<b>2500/480</b>	<b>head/feet</b>

**Must be first recon.**

### KNEE RECONS

<b>AX KNEE BONE</b>	<b>1.25</b>	<b>0.625</b>	<b>bone full</b>	<b>2500/480</b>	<b>head/feet</b>
COR KNEE BONE	0.625	0.625	bone plus full	2500/480	front/back
SAG KNEE BONE	0.625	0.625	bone plus full	2500/480	left/right

**Must be first recon.**

### ANKLE RECONS

<b>AX ANKLE BONE</b>	<b>2.5</b>	<b>2.5</b>	<b>bone full</b>	<b>2500/480</b>	<b>head/feet</b>
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**Must be first recon.**

# CT Conformis Knee

## PHILIPS PARAMETERS & RECONS

For Hip, Knee and Ankle scans:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time
Incisive 128	helical	120	103	20	on	0.80	64	0.625	0.75

### HIP RECONS

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX HIP BONE	2.0	2.0	YC	bone	3	head/feet

### KNEE RECONS

AX KNEE BONE	1.0	0.5	YC	bone	3	head/feet
COR KNEE BONE	1.0	1.0	YC	bone	3	front/back
SAG KNEE BONE	1.0	1.0	YC	bone	3	left/right

### ANKLE RECONS

AX ANKLE BONE	2.0	2.0	YC	bone	3	head/feet
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